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NOTES ON MUNICIPAL GOVERNMENT.

Recent Inspection of Meat Supply

A Symposium

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New York.—THOMAS DARLINGTON, M. D., Commissioner Department of Health, New York City.

Cincinnati.—MAX B. MAY, and JOSEPH M. GOOD, V. S. M. D., Chief Meat Inspector, Cincinnati, Ohio.

New Orleans.—DR. QUITMAN KOHNKE, City Health Officer, New Orleans, La.

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CHICAGO

By HUGO S. GROSSER, City Statistician, Chicago, Ill.

Practically all meat consumed in Chicago comes from the large slaughter houses, commonly called the packing houses; but a small percentage comes from smaller establishments, whose trade is almost entirely local. There is, too, some meat consumed in Chicago which is slaughtered at outside points in Illinois, but the quantity is small. Broadly speaking, the great houses of Armour, Swift, Morris, Libby-McNeal & Libby, Schwartzschilds & Sulzburger, Cudahy and the National are the butchers and meat market men of Chicago. The bulk of the meat, animals, hogs, cattle, calves and sheep which come to the Chicago market are grown and fattened on Western prairies. A good many of what are known as ranch cattle, or cattle which are raised and fitted for market entirely on the immense ranges and ranches of the far west and southwest, Texas and New Mexico, Arizona, Colorado, Western Kansas, Wyoming, Idaho and Montana and the Dakotas, find their way to the Chicago market, although there are several meat slaughtering and packing points nearer to the prairies where they are grown.

These, however, constitute by no means the largest part of the cattle

supply of Chicago. The fine beef cattle and the choice hogs come largely from the corn growing districts in Illinois and Iowa and parts of Minnesota, Wisconsin and Indiana. Hogs, of course, are usually bred in the locality in which they are fattened. Very many of the prime beef cattle, however, are western born and bred and are sent from the grass ranges to the corn belt for quick fattening and finishing for market. Of course, considering the healthfulness of the Chicago meat supply, the source of the animal supply is an important point, for the diseases to which cattle and hogs are subject are largely dependent upon the locality from which the animals come.

For instance, tuberculosis is very rare in the stock that is raised and fattened on ranches and farms where there is plenty of room to run out of doors. A small percentage of beef animals come from the dairy districts contiguous to Chicago. These are the class of cattle commonly denominated as "canners," consisting mostly of cows, although these do not in themselves constitute anything like a majority of the stock used for canning purposes. A very great proportion of the beef animals used for canning are the western beef animals, which come to market in fair condition, and healthy, but not fat, as fat meat is not desirable for canning purposes. Ninety per cent of the cases of tuberculosis found among beef animals are found among the cattle which come from the dairy district, and particularly among cows; but this ninety per cent is an almost imperceptible part of the total number of animals slaughtered in Chicago.

This question of diseased animals has been over-emphasized in much of the recent discussion of the meat question throughout the country. The percentage of diseased animals, that is animals suffering from diseases of any kind, which the authorities regard as rendering the meat unwholesome, is very small. In cattle, the condemnations run from three-fourths of one per cent to one per cent; in hogs, the condemnations run about one-fourth of one per cent. Thus the percentage of diseased animals being very small in the first instance, the provisions for inspection are such as to make it practically impossible that diseased meat from these animals should reach the public.

The slaughtering houses and packing houses in Chicago can hardly be considered ideal establishments; yet they certainly are not the unmitigated adjuncts of an inferno, as one might infer from some of the things said and printed about them. In character of construction, appointments, and so forth, they are nothing like what they would be if they were to be built new today. In these respects they are probably not equal to newer plants in many other cities, particularly states further west which have come into prominence as packing centers only within a comparatively few years. The meat packing industry as we know it today, is comparatively young. It was inaugurated at Chicago thirty-five years ago. Its growth has been phenomenal. The firms which dominate the trade now were in the trade from the beginning. Their resources particularly in those days were tied up in their business. When their houses were built it was impossible to figure with the stupendous growth that the industry has experienced, and consequently a great deal of patch work was done, and the various buildings

and apartments are not co-ordinated as they would be in a plant newly built as an entirety. The packer's business was booming to such an extent that he hesitated to close down a part of his plant long enough to erect an entirely new plant. Instead, he tried to remodel and adjust it by building additions and supplementary buildings. The consequence has been that the Chicago packing houses, with many of the buildings at least twenty years old, and some of them older, are deficient in the application of up-to-date ideas in sanitation, ventilation, and so forth; but while these buildings in which the slaughtering and meat-packing is carried on are old and deficient in these points, it cannot be said that they are kept in an unspeakably filthy condition. They have not been made as attractive as they could have been made by means of more liberal amounts of paint and whitewash. The owners of them have utterly neglected the æsthetics of the building. In the rush of business, they have not given much attention to appearances. But it must be admitted that they are reasonably clean when looked upon from the proper viewpoint. Dirt that accumulates in any slaughter or meat packing establishment is, of necessity, largely composed of animal matter, blood, fat, grease and scraps of meat. Animal matter left about to accumulate in cracks, corners and crevices or on the floor will inevitably putrefy and produce a stench that cannot be confused with any other smell ordinarily denominated a packing house smell; the absence of such a stench from practically all Chicago establishments must be taken as an evidence that while woodwork and the like becomes stained and discolored and may not look clean, yet in fact it must be reasonably clean or it would give off an unendurable stench that would make living within miles of these packing houses impossible.

In the past few years, long before the recent agitation was thought of, there has been a noticeable improvement throughout these establishments. The use of asphalt, concrete, brick and other impervious substances for floors in killing and meat handling departments, has been coming rapidly into vogue. As a reason why such materials were not used sooner, the packers claim that they have had some difficulty in experimenting with asphalt and concrete, and finding the exact composition that would not suffer disintegration and deterioration from the animal acids coming in contact with it. For some years, and especially now more than ever, all of the large packing houses have been and are spending large amounts of money in making these improvements.

As Chicago is, generally speaking, the main source of meat supply for nearly the entire country, it is somewhat difficult to differentiate materially between the inspection of the local meat supply and the inspection for the interstate and foreign trade as furnished by the federal government, as well as the local authorities. The large packing houses have had government inspection since it was inaugurated, and have always favored it, simply because they found it a material advantage in their foreign trade to be able to say that their meats were inspected under the direction of the national government. The regulations of this national inspection applied to all meats handled in any house where it was once established.

Since 1891, government inspection includes the examination of the live animals before slaughter, and of the carcasses at the time of slaughter. And it is, of course, impossible to distinguish between a carcass that is intended for consumption in Chicago and a carcass intended for shipment to Boston, New York, San Francisco, or shipment abroad. In fact, parts of one carcass might be used in Chicago and other parts go abroad. Therefore, the whole animal has to be inspected. On this point there has been much misinformation. It is frequently believed that government inspection applies only to meats intended for export. As a matter of fact, with a single exception, the microscopic examination for trichinæ in pork going to Germany, all animals killed in Chicago plants have been subjected to exactly the same inspection, whether they are intended for local, interstate or export trade. No house having government inspection can, under the law, purchase animal products of any kind from an establishment that is without government inspection, and therefore practically all the slaughtering establishments are under the same regulation, as otherwise they would be forced out of business as they could not meet competition without getting something for their by-products. Thus, there have never been more than three or four small slaughtering establishments in the city of Chicago that were operated without the restriction of government inspection.

It is claimed by the Department of Agriculture that inspection regulations in this country as applied in Chicago are so much more stringent than the regulations which obtain in any other country on earth. By the fact that pathologists, bacteriologists and veterinarians of established reputation, such as Dr. W. A. Evans and Dr. Maximillian Herzog of Chicago, Dr. M. P. Ravenel of Pittsburgh, A. P. Peters of Nebraska, Dr. M. H. Reynolds of Minnesota, Dr. Douglas Dalrymple of Louisiana, Prof. Wm. H. Welsh of Johns Hopkins University, and others, support this contention, it seems to be well established that many animals are condemned and destroyed in Chicago and other American cities which in many other countries would be passed for food.

The government inspectors who have charge of this work in Chicago are all trained veterinarians. The manner in which they perform their duty is substantially as follows:

Hogs, after being killed and bled and put through the scalding tank and through a scraping machine that removes most of the hair and bristles, pass through the hands of the butcher who severs the head through the backbone, but leaves it attached to the body by one side of the neck. From this head-cutter the hog passes under the hands of a government inspector, who examines the glands and organs of the throat and neck for evidences of disease. This examination is especially important; as it is a matter of record that ninety-five per cent of the hogs condemned are detected by this first inspection. After passing through other processes connected with the dressing of the animal, the hog is disemboweled under the eye of a second inspector. This inspector's duty is to examine the viscera — heart, lungs, intestines, etc. — for signs of infection. Neither of these inspectors makes a final examination, they simply look for conditions that

are suspected. Being trained veterinarians, they detect any evidence of an abnormal condition in the neck glands and organs or in the viscera of a hog as quickly as the ordinary man would detect an abnormality on the countenance of a friend. When either of these inspectors finds a sign of disease, he seals upon the carcass a tag, marking it as suspected. All carcasses not tagged are passed, of course, for food.

The inspected carcasses are separated from the others and are segregated. Then a third inspector, who is the chief in that establishment, makes a final examination to determine whether the evidences of disease discovered by either of the other two inspectors are of a character to make the carcass unfit for food. If the infection has been slight or merely local, or has been practically cured by nature, leaving a sign of infection that is really nothing more than a scar on the internal organs, the carcasses pass for food. If it is considered in any way unfit, and the regulations covering the conditions that make it unfit are very stringent, it is cut up and destroyed under the personal supervision and direction of this third inspector.

The destruction is accomplished in this way: The carcass is chopped up under the eye of the inspector, and is by him conducted to the rendering tank. He seals the bottom of that tank with a Government seal. The condemned meat is then thrown in at the top, and the top is likewise sealed with a Government seal. Then the steam is turned on, and this meat, mixed with refuse of various kinds that would make the product of the tank absolutely unfit for food and impossible to use as food, is left to cook at a temperature of 225 degrees for not less than four hours. The condemned meat is thus absolutely destroyed.

The method of inspecting beef animals is substantially the same as in the case of hogs, with the difference that it has been found by practice necessary to examine only the viscera of cattle; the examination of the neck and throat glands is dispensed with. On the cattle killing floor, the Government inspector follows the butcher who does the disemboweling, and as the animal's abdomen is opened, he examines for signs of disease, tags suspected carcasses, and has them segregated for further examination, and final disposition by the chief inspector.

When suspected animal carcasses are set aside, they go to a retaining room, upon which there is a government lock, and the government inspector has the only key to that lock. Therefore, such suspected carcasses could not be abstracted and sent out to the public as food, even though a packer were so conscienceless as to attempt it, without collusion with the government inspection, and there has never been any evidence in Chicago of such collusion.

These inspectors are absolutely supreme under their authority from the Department of Agriculture, and no packer or slaughterer dares to interfere with them in the discharge of their duties. They are changed from house to house every few weeks. In starting the day's killing, no packer knows what inspector or inspectors will be assigned to his establishment for that day. If the packer does not give these inspectors every facility they may

require for their work, or if he attempts to interfere with the discharge of their duties, then the Bureau of Animal Industry and the Department of Agriculture have absolute authority to withdraw all inspectors from that house. This means that the department has a right to practically put that slaughtering and meat packing house out of business, because without inspection the packer cannot do an interstate or foreign trade, and public knowledge that inspection had been withdrawn from his establishment would so prejudice his product, even for local trade, that he would probably find very little sale for it.

In addition to the federal inspectors, there are also state inspectors and city inspectors. The inspection of the meat supply under the authority of the state government is confined entirely to inspection of live animals. This is conducted in Illinois as far as I know only at the Union Stock Yards in Chicago and the National Stock Yards at St. Louis. In this inspection the state officials co-operate with the United States Government and the local inspectors.

Inspection on the hoof detects, principally in cattle, actinomycosis, or lump-jaw, possibly advanced cases of tuberculosis and emaciation, when cattle are too poor and thin to be considered as food. Animals thus detected and suspected when alive are segregated, virtually quarantined. They are not sold to the large packers or to any other slaughterers. They remain in the ownership of the man who sent them to market. Once a week or oftener if necessary, these quarantined cattle are taken to an official quarantined slaughter house, and are there slaughtered under the supervision of an United States inspector, a state inspector and a local city inspector. Some of them, of course, after slaughtered, are found to be fit for food; in which case they are passed the same as if they had been slaughtered in any of the officially inspected slaughter houses. If found to be unfit for food, they are treated the same as in the large houses; that is, the carcasses are destroyed or converted into grease and fertilizer material. The meat that is good is, of course, sold just like any other meat that is inspected and passed as fit for food, and the grease and fertilizer material that is derived from the condemned meat, are also sold, and the proceeds are remitted to the shipper.

This work is performed in Chicago by the Standard Slaughter Company, which has had a great deal of attention in recent discussions of the meat question, and its existence has been subject to very much misinterpretation. The Standard slaughter house establishment does not compare with any of the large plants in cleanliness or sanitary arrangements. For this condition there is no excuse; it ought not to be tolerated.

However, the larger amount of misinformation concerning the Standard has been along the line of treating it as an outlet for diseased cattle or diseased meat. This construction of its function is unfair.

The method of handling diseased cattle, through the Standard slaughter house, was devised to protect the public against diseased meat. Before this method was adopted by direction of the late Governor Altgeld, diseased animals coming to the stock yards at Chicago were simply separated from

their fellows and sold to anybody who would buy them. They were then run out into the country to some nearby point, where their slaughter would not be under official observation, and were there killed. The meat from them was then sold in Chicago. The method of having them killed in a quarantined slaughter house was adopted to prevent the sale of meats from inspected animals that could be shown to be after slaughter unfit for food. This quarantined slaughter house thus becomes not an outlet for diseased meat, but a gate that is locked against the passage of diseased meat to the public.

Meats that come from the Standard slaughter house, after passing inspection, are of course as good as meats from any other source, but as a matter of fact, to avoid any misunderstanding on the part of the public, the large packers prefer not to deal in the Standard output.

On top of the inspection of the live cattle by the state inspectors, and the carcasses and meats by the Government inspectors, comes the inspection by the city inspectors. This may have been somewhat neglected in former years, but more recently it has been most rigid and severe. City meat inspectors are appointed under the civil service system, and are either veterinarians or at least have had a long practical experience as butchers, and so forth.

In order to show some of the qualifications required of these men, I quote here a few of the questions asked in the civil service examination for meat inspectors of February 15, 1906:

1. Name the diseases and other conditions for which you would condemn and destroy meat.
2. Describe the post mortem appearance of cattle afflicted with tuberculosis. Where lesions are usually found.
3. Describe the post mortem appearance of cattle affected with actinomycosis.
4. How would you tell immature veal, commonly called "slunk" calf?
5. Describe the post mortem appearance of a cholera hog.
6. Describe the post mortem appearance of a "downer."
7. Describe the post mortem appearance of an emaciated carcass.
8. How could you tell that the evidences of tuberculosis had been removed from a beef carcass?
9. Name three diseases commonly found in hogs.

Their duties and powers may be learned from the following quotations from the city ordinances:

"All meat condemned in the city by government or state meat inspectors shall be destroyed under the supervision and subject to the directions of the city meat inspectors, and the city meat inspectors or any one of them are hereby empowered to seize, condemn and destroy any tainted or unwholesome meat found in the city, and they are authorized to enter any building, structure or premises in the city to inspect and examine any meat contained therein.

"Every keeper of a meat market or dealer in meats and every person owning or occupying any place where any cattle are killed or dressed

. . . shall cause such place to be thoroughly cleansed and purified, and all offal, blood, fat, garbage, refuse and unwholesome or offensive matter to be therefrom removed at least once in every twenty-four hours, after the use thereof for any of the purposes herein referred to, and shall also at all times keep whitewashed the floors and counters and the building thoroughly painted and whitewashed."

The city inspectors have full power to enter any place where animals are killed, or where meat is kept, except of course, private residences. While the city inspectors are not present, as a rule, at the slaughter of the animals, they inspect daily the cooling rooms of the various establishments and there, as the records show, condemn many carcasses, often after they have passed Government inspection. They tag every carcass that they find unfit for food, even if it has already been condemned by the Government inspectors; but of course they do not inspect again that which already has been condemned.

The Commissioner of Health, in his annual report for the year 1905, states as follows:

"The city meat inspectors have condemned in the coolers and on the cutting floors, *after passing Government inspection*,

125 Cattle, cause Actinomycosis.

97 " " Emaciation.

24 " " Tuberculosis—evidence of disease having been trimmed out.

16 " " "Downers."

27 Sheep, " Pneumonia.

94 Hogs, " Pyæmia and Tuberculosis.

47,720 lbs. cut meats shipped from St. Louis, Omaha, etc., for canning. This meat was sour and slimy.

Dr. Charles J. Whalen, the Commissioner of Health, has recently issued the following instructions to meat inspectors:

"All animals found upon examination to be affected with any of the following diseases or conditions, shall be *condemned and destroyed*:

Tuberculosis, Texas Fever, Actinomycosis, Black Leg, Pneumonia, Piemia, Septicæmia, Rabies, Hog Cholera, Swine Plague, Anthrax, Mange or Scab, Hemorrhagic Septicæmia, Pleurisy, Enteritis, Peritonitis, Metritis, Malignant Epizootic Catarrh, and animals in an advanced stage of Pregnancy, or within ten days after parturition; animals with extensive bruises and injuries; tumors; abscesses; anemic or emaciated animals; immature animals; calves under four weeks of age; any disease or injury or elevation of temperature so affecting the animal as to make the flesh unfit for human food.

"Any and all animals affected with any of the diseases or conditions named below shall be disposed of according to the following instructions:

"TUBERCULOSIS. All animals affected with tuberculosis of a generalized or extensive character, shall be condemned and destroyed. The carcass may be passed if the tuberculosis is slight, incapsulated or calcified, and

limited to one organ or one group of lymphatic glands. The lesions and the surrounding tissues must be removed and condemned.

"**ACTINOMYCOSIS.** The entire carcass shall be condemned whenever the actinomycosis abscess opens into the mouth, pharynx, larynx, or any part of the adjoining or respiratory tract or one of the lymphatic glands are involved, or when the lesions have become generalized or if the animal be affected with tuberculosis or any other disease. The animal may be passed if the lesions are small, calcified or incapsulated and confined to the head or neck. These affected parts and the surrounding flesh to be condemned and destroyed.

"**ICTERUS.** All animals showing evidences of Icterus (Jaundice), after proper cooling, shall be condemned and destroyed.

"All animals that have died before slaughtering shall be condemned and destroyed.

"All meats—fresh, smoked, slated or otherwise treated—which are found to be unwholesome, tainted, sour, decomposed or otherwise unfit for human food, shall be condemned and destroyed.

"All animals or parts of animals or meat or food of any kind that is condemned shall be tagged immediately with a tag furnished by the Department having upon it in large red letters 'Condemned.'

"All condemned carcasses and parts shall be tanked and destroyed under the personal supervision and direction of a meat inspector who should seal the tank after the material has been placed therein, and break such seal after he is satisfied that the steam which has been turned into the tank has completely destroyed the meat.

"In all cases where the inspector is not perfectly satisfied that the animal should be condemned, it shall be tagged and portions of the lesion removed and brought to the laboratory for examination and diagnosis by the pathologist.

LUMPY JAW.—"While Actinomycosis is usually confined to the head, and may be said in one sense to be a localized disease and while some inspectors condemn only the part involved I believe it is safest and most practicable to condemn the entire carcass whenever the Actinomycosis abscess opens into the mouth, pharynx, larynx, or any part of the digestive or respiratory tract; or when the lymphatic glands are involved; or where there are Actinomycotic Tumors in the lungs; or where the lesions have become generalized, since generalization in Actinomycosis appears to run a very atypic course, making the detection of all foci inside the muscle very difficult; therefore the entire carcass is to be condemned.

"In cases where the Actinomycotic lesions are positively localized the infected part may be cut away and the remains of the carcass used.

"These instructions apply only to 'Lumpy Jaw.' There may be other reasons why you should want to condemn a carcass, and it is then a matter of judgment for you and your men. But you should never hesitate if you believe the animal to be not fit for human food.

"CHAS. J. WHALEN, M. D.,
"Commissioner of Health."

There are at present eight inspectors engaged exclusively with the inspection of meat. During the first six months of 1906 condemnations at the Union Stock Yards and in the so-called "Loop" district, that is the down-town district where the commission houses and wholesalers are located, were as follows:

In Union Stock Yards 3500 carcasses of beef, weighing 1,054,400 pounds; 2015 carcasses of veal weighing 335,980 pounds; 4224 hogs, weighing 1,245,334 pounds.

In the "loop" district they condemned 39 carcasses of beef weighing 17,550 pounds; 738 calves, weighing 52,810 pounds, and 76 hogs, weighing 19,309 pounds.

They further condemned 62,639 pounds of dressed meats in the stock yards and 99,656 pounds in the loop district.

This does not include lamb or mutton, poultry or other foods. The slaughter houses and abattoirs, as well as the local markets, are also examined and investigated by special sanitary inspectors, and although this work had always been done to a large extent, it cannot be denied that the recent agitation has been a great incentive for more and perhaps more rigid work. All together it may be stated with safety that meat inspection in Chicago is at present carried out so rigorously as to protect Chicagoans as well as the consumers in other cities against any possibility of unwholesome meat.

NEW YORK

By THOMAS DARLINGTON, M. D., Commissioner Department of Health, New York City.

New York City derives its meat from two sources—that which is imported from the large abattoirs of the west, and that which is killed and prepared in the local slaughter houses.

The only supervision which the Department has over the western killed meat is that of the inspectors stationed in the wholesale markets and that of the inspectors who are assigned to duty in the retail butcher shops. These men are few in number and of course cannot inspect each shop every day or even every week. They do however cover the districts assigned to them as frequently as possible. The locally killed meat is examined in a general way by veterinarians in the stock yards before being delivered at the slaughter houses. After the arrival of the cattle at the slaughter houses they are under the general supervision of inspectors assigned to each slaughter house or slaughtering district as the exigencies of the service may demand. These men are required to conserve as far as possible the wholesomeness of the meat sold. Various sections of the Sanitary Code give these inspectors authority, and, in fact, the direction to condemn and seize all meat which is unfit for human food and have the same removed to the Offal Dock for destruction.

During the year 1905 there were condemned and seized 247,293 pounds of beef, 210,112 pounds of veal, 264,951 pounds of pork, 260,807 pounds of poultry, and 97,850 pounds of mutton. This with the assorted meats and game seized made a grand total of 1,110,749 pounds of meat seized during the year.

The Charter of the City of Greater New York defines quite specifically where slaughter houses may be established. Sections 83, 84, and 85 of the Sanitary Code limit the location of the slaughter houses in the Borough of Manhattan to two very small districts, and in the Borough of Brooklyn and other boroughs, to places located at or near the water front so that all stock to be killed may be delivered thereat from boats or cars, with this proviso, however, that any slaughter houses which were in existence prior to consolidation of the City of Brooklyn and the City of New York, might be allowed to conduct their business as heretofore. No new building may be constructed or operated as a slaughter house within the City limits until its proposed plans have been thoroughly examined and approved by the Board of Health at one of its stated meetings. All the parts of a building in which slaughtering is conducted are, so far as possible, made of non-absorbent material. The buildings are frequently painted or white-washed and are kept in as cleanly a condition as the nature of the business will allow.

The blood, offal, fat, and other refuse from slaughtered animals is disposed of either in disposal plants situated in the immediate vicinity of the slaughter houses, or else is conveyed to the Offal Dock in tight fitting receptacles and removed by the offal contractor for destruction. These plants are constructed in accordance with the most modern practice. All of the apparatus necessary in the treating of this material is air tight and is so arranged as to prevent the escape of offensive odors into the external air.

CINCINNATI

By MAX B. MAY, ESQ., and JOSEPH M. GOOD, V. S. M. D., Chief Meat Inspector of Cincinnati.

About 90 per cent of the beef and 85 per cent of the pork and other meats sold in Cincinnati are slaughtered and prepared in Cincinnati. Fifty-two packing and slaughtering houses are located within the city limits. The general sanitary condition of these houses is good, a marked improvement having been made since last March; and it is expected that conditions will continue to improve steadily.

Under the revised statutes and local ordinances the Board of Health is authorized to adopt regulations for the inspection of meat. A State law makes the sale of any kind of diseased or tainted meat, without notifying the buyer of the condition thereof, an offense punishable by a fine of not more than \$50, or imprisonment for twenty days, or both. A similar penalty is visited on any person who has in his possession, with intent to sell,

any veal which he knows to have been killed when less than four weeks old. The principal law governing the sale of meats is the Board of Health regulation which prohibits any person from bringing into the city for sale any meat, fish, or poultry that is diseased, or for any other reason is unfit for food. The mere fact that animals are placed in a slaughter house pen is sufficient evidence that they are being exposed for sale. No part of any animal food that has been examined and condemned by the inspector or his assistants may be offered for sale for food in any market or place in the city. Whenever diseased or unsound animals are condemned by the inspectors as unfit for human food, the health officer may, whenever he deems it necessary for the protection of the public, order the inspectors to kill the condemned animals. The carcasses of these animals are turned over to the party who is under contract with the city to remove the bodies of dead animals. The inspectors supervise the delivery of these animals.

The Chief Live-Stock and Meat Inspector and his assistants are appointed by the Board of Public Service, sitting as the Board of Health, upon the recommendation of the Health Officer. Board of Health Reg. No. 7 says: The Live-Stock and Meat Inspector and his assistants shall enforce the laws and ordinances relating to his sub-department, and particularly those concerning diseased or unsound cattle and meats, and the sections relating to slaughtering and slaughter pens.

Besides the Chief Live-Stock and Meat Inspector there are four assistants; the chief is a graduated veterinarian and physician who has had seven years' experience as a meat inspector; the assistants are practical butchers. These inspectors inspect as best they can all animals in the pens at the various slaughter-houses, inspect the dressed carcasses in the coolers of the slaughter-houses and meat depots, inspect all retail markets and meat stores, and spend as much time as possible doing post-mortem inspection at the different slaughter-houses while slaughtering is being done.

The U. S. Department of Agriculture maintains a corps of fifteen inspectors at the Union Stock Yards and at two of the larger packing-houses. These inspectors co-operate with the Health Department as much as possible, and they do all inspecting of live animals at the Union Stock Yards, which receives about ninety-five (95) per cent of all live stock received in the city.

The final inspection of all meats, regarded as unfit for food is made by the Chief Live-Stock and Meat Inspector, and what he condemns is saturated with coal oil and sent to the desiccating works. Where carcasses of cattle, hogs, or calves are condemned the owner usually receives a small remuneration from the desiccating company.

NEW ORLEANS, LA.

By **DR. QUITMAN KOHNKE**, City Health Officer, New Orleans, La.

The meat supply of New Orleans is derived mainly from two sources: The local slaughter houses and the Western packers. What is known as imported or western meat is shipped from Omaha, Kansas City and Chicago. This comprises about 25 per cent of the total of whole animals, though probably an equal quantity by weight is additionally received in the shape of pork loins, shoulders and miscellaneous pieces; the balance of the meat supply is from the local slaughter houses of which there are two in operation, one within the city limits and the other in the adjoining parish of St. Bernard. Roughly speaking the supply in bulk is about equally divided between imported and home slaughtered meat, the increase in consumption averaging about ten per cent yearly. The total quantity inspected in 1905 was 248,739 whole animals, 331,383 pork loins, 48,913 pork shoulders and 1,905,118 miscellaneous pieces not classified.

Railway shipments are received in refrigerator cars and the meats are, as a rule, in good condition on arrival, though delay in transport occasionally occurs and this sometimes causes condemnation of shipments in whole or in part. In 1905 there were condemned on account of decomposition 24,210 pounds of meat and in 1904, 20,919 pounds. Occasionally dressed meat is found on arrival bearing the government stamp and yet showing evidence of disease. The government stamp affords no protection to the owners against local condemnation for any cause.

Local slaughter houses have improved considerably in the last few years and are now in fairly good condition, though not to be classed with the most modern in sanitary construction and proper management. The most objectionable feature of the neighborhoods of the slaughter houses is the presence of the rendering plants, no one of which is operated with the minimum possibility of offence.

Of the two slaughter houses the one within the city limits is decidedly the better both in construction and management. It is conducted on a co-operative basis, being practically owned and operated by the butchers who market its products. While not yet including all of the desirable features of a thoroughly modern abattoir its inauguration a few years ago was a distinct and important sanitary improvement, and its success in competition has stimulated the older establishment, just outside the parish line and city limits, to extensive plans of structural improvements soon to be carried out.

The Jefferson Barracks, an important permanent army post, is situated between the two slaughter houses, and at times urgent complaints are made against the unpleasant odors arising from their proximity to the post. These and similar complaints are due, it is believed, to the rendering plants and not to the abattoirs themselves.

The act establishing boards of health in Louisiana gives to the State

Board of Health the authority to establish regulations for the inspection of food products imported into the state or brought from one parish to another, but the State Board has acquiesced in the formulation of regulations by the City of New Orleans for the inspection of meats intended for consumption in that city, and a state statute gives, especially, to the New Orleans Board of Health sanitary authority over the slaughter house in the neighboring parish of St. Bernard. The ordinance creating the meat inspection service provides for a graduated fee for the inspection of home slaughtered, and imported meats sufficient to defray the costs of such inspection, aggregating about \$15,000 annually.

In the department of local inspection there are employed from 12 to 15 inspectors, under the direction of a chief who is a veterinarian. No civil service requirements are enforced, the general civil service law not including in its scope the employees of the board of health. The meat inspectors are appointed by the Board of Health, but as the chief meat inspector is responsible for his subordinates his recommendations as to appointments and dismissals are usually adopted. Inspectors are stationed at the local slaughter houses and at the receiving stations for imported meats and all meats are inspected and marked, by tag or stamp, prior to their being sent to the retail markets, where they are still kept under surveillance for decomposition by inspectors, who visit the markets in the early hours of the morning. The method of inspection is by sight, touch and smell; the assistant inspectors being instructed in the recognition of abnormal conditions. Occasionally chemical, microscopical and bacteriological examinations are necessary, and are made. The method of inspection is the same for imported and home slaughtered meats.

Meat found in a condition unfit for food because decomposition has set in, or for other cause, is saturated with coal oil and sent to a rendering plant or dump according to the value and quantity. At times quantities as large as 10,000 pounds and over are condemned, and, as the ownership of the meat is not affected by its condition, it is sold for account of the owner to the highest bidder prepared to destroy it. Quantities too small to have a commercial value except as food are oiled and sent to the garbage dump.

Cattle intended for slaughter are subject to inspection on the hoof by an inspector who is an appointee of the Governor. Usually he is not technically qualified and acts by deputy. This inspection has consisted for many years in a mere counting of heads for the purpose of collecting the fee. It is a farce, whose only excuse for existence, aside from furnishing a job to a political favorite, is that a part of the fee collected is paid to the Charity Hospital. No compensation is paid to owners of condemned meat other than that which is paid by the rendering plant.

The city ordinance under which the meat inspection system operates has been called into court twice; once into the State court by the local butchers and once into the Federal court by the agents of western packers. In its present shape, which is its second enactment, it fulfils every requirement of constitutional law and is unassailable.

New Orleans was at one time a market for meat that could not be

sold in other large cities, but the local meat inspection system has made it unprofitable for shippers to consign inferior meats to this city and hence the quality of shipments has improved, both in dressed meats and live stock intended for slaughter.

DETROIT, MICH.

By DELOS F. WILCOX, PH.D., Secretary Detroit Municipal League.

Detroit gets its meat supply from various sources. Most of the dressed meat is received from the Chicago packing houses in car lots. Probably more than half of the total supply of meat, however, is received from various parts of Michigan, and slaughtered here. The animals are generally brought in by rail, although some are hauled to the city by farmers from the surrounding country. The meat brought in by individual farmers is not always seen by the inspectors. A very large part of the animals brought here for slaughter pass through the Detroit stockyards. There are, however, a large number of private slaughter-houses in the city, more than forty wholesale meat dealers and upwards of 500 retail markets. When the conditions at the Chicago stockyards were being investigated a few months ago, there was some special investigation and criticism of local conditions which led to the passage of more stringent ordinances regulating the equipment of the stock-yards and the inspection of meat.

Detroit has for the last twenty years had two meat inspectors. They were originally appointed by the Common Council, but are now appointees of the local Board of Health, whose members have since 1895 been appointed by the Governor of the State.

Three years ago the Legislature passed a general act authorizing the appointment of one or more meat inspectors by any city or village in this State, and conferring upon the local authorities power to license the meat business and regulate slaughter-houses by ordinance. Authority is given to exclude from the city or village the meats from any outside slaughtering-house which does not conform to the rules laid down. Furthermore, the municipality is authorized to establish a public abattoir, if it so desires. Meat that has already been inspected by Federal authority is exempted from local inspection except as to the place where it is sold and as to changes, decomposition, etc. This law contains stringent provisions for the regulation of slaughter-houses, which must be contained in any local ordinance adopted under the terms of the act. Under special laws, however, Detroit had long since been equipped with a meat inspection system and ordinances controlling it.

The following rules have been adopted by the Detroit Board of Health, governing the use and care of slaughter-houses within the limits of the city, and every owner, lessee or occupant of a slaughter-house is notified and required to obey them;

"First. All slaughter-houses, pens or enclosures connected therewith, shall be kept in a proper sanitary condition.

"Second. Slaughter-houses shall have water-tight floors, which shall be thoroughly washed off after slaughtering is completed.

"Third. Slaughter-houses and pens shall be whitewashed inside at least once a month.

"Fourth. All slaughtering of animals shall be conducted without exposure to the public.

"Fifth. All offal shall be removed on the day of slaughtering.

"Sixth. Iron gratings (bars not over one inch apart) are required to head all outlets to sewer from floor of slaughter-house.

"Seventh. All animals kept in yards attached to slaughter-houses must be treated in a humane manner, and, if kept there over twelve hours, must be fed and watered. Bleating calves shall not be kept in pens over twelve hours.

"Eighth. The meat inspectors of the Board of Health shall have free access to premises at all times in the performance of their duties.

"Ninth. It shall be unlawful to slaughter any animals in sheds or barns. A slaughter-house designed and built in accordance with the law is the *ONLY* place where such killing may be done, and no nuisance shall be committed."

The Detroit Board of Health act itself provides that "Neither blood, bristles, hair, entrails, or any offal whatever shall be allowed to enter any public sewer, and all entrails shall be emptied, all blood cooked, and all offal cleaned up at the place of slaughtering within six hours after such slaughtering takes place."

Until recently the city ordinance governing the stockyards has provided that they be paved with cobblestone, and of course under these conditions the floors could not be properly cleaned. The new ordinance requires that "All stockyards in the City of Detroit shall be thoroughly drained, and paved with vitrified brick or other suitable material, which may be readily and thoroughly cleaned of all accumulations, such drainage to be connected with a public sewer, and the pavement laid in such a manner as to keep the same dry and free from standing or stagnant water."

The new ordinance prescribing methods of meat inspection provides that "It shall be the duty of said inspectors personally to view as far as possible all meats and poultry offered or kept for sale for human food in said city; to visit all stock yards, barns, commission houses, slaughter houses, and all other places in said city, and to inspect all animals delivered, received, confined or held in them for slaughter, and the carcasses of all animals already slaughtered for human food, and to visit all places, including all steam and electric railway stations, depots or freight houses, steamboat wharves or freight houses belonging thereto, express houses, cars or wagons where meat for human food is delivered to, received, stored or held by railway corporations, steamboat owners, or other corporations, firms or persons, kept or offered for sale, and to inspect and ascertain the condition of said meat.

"Each of said inspectors shall have authority, and it shall be his duty to condemn, take immediate possession of, confiscate and destroy any meat or poultry, sold or offered for sale, in violation of this or any other ordinance of the city, and make complaint before the proper officer for every violation of said ordinance, coming to his knowledge, and it shall be unlawful, and a

violation of this ordinance for the owner or any other person to remove, secrete, sell or offer for sale any live animal or animals, fish, game or poultry, or the carcass or carcasses of any and all slaughtered animals, fish, game or poultry, oysters, clams, lobsters, or other sea food, after the same shall have been taken possession of, confiscated and condemned by either or both of said meat inspectors.

"Said inspectors shall at all times have the right to open any and all barrels, boxes or packages in their discretion at any of said stations, depots, wharves, freight houses, warehouses, commission houses, express houses, cars or wagons, or other places in which they have good reason to believe, any carcass of any animal, fish, poultry or game, oysters, clams, lobsters, or other sea food, or other article of meat shipped, offered or intended to be offered for sale for human food, is contained or concealed, and take immediate possession of, confiscate, condemn and destroy, if necessary."

The meat inspectors shall have the right, and it shall be their duty to condemn and cause to be slaughtered immediately and destroyed, so that the same shall not be used for human food all calves under four weeks old, or which are diseased, emaciated or otherwise unfit for human food; and all badly crippled, overheated or diseased hogs, cattle, sheep or lambs, which for any other reason are unfit for human food.

It would seem as if two inspectors would have their hands more than full in carrying out the provisions of this ordinance for a city of 350,000 inhabitants. It is claimed, however, that they visit the principal wholesale markets every day and get around to the retail markets once or twice a week. Complaints requiring their special attention are occasionally received. The city inspectors do not look after shipments of dressed meat, but see it only when and where it appears for sale. The animals brought into the city for slaughter are, however, subject to inspection. The inspectors have summary authority to condemn unsound meat or diseased animals intended for slaughter. The usual method of handling condemned meat is to treat it with kerosene oil so that it cannot be used for food. Condemned meat is sent to local rendering plants. Condemned animals are slaughtered and sent the same way. No provision is made for compensating the consignee in case shipments are condemned. He is left to adjust that with the shipper.

MILWAUKEE, WIS.

By JOHN A. BUTLER, Milwaukee, Wis.

The Chicago and Milwaukee stock yards furnish Milwaukee with its supply of meat, and the railway shipments are large. The present condition of local slaughter houses is good. The city is very fortunate in its present health commissioner, Dr. G. A. Bading, who is competent and energetic and thoroughly alive to the sanitary necessities of the population. He was not only the first municipal health commissioner to make a drastic and thorough inspection of the condition of the local meat supply after the Neills-Reynolds

report, but he is the indefatigable foe of unsanitary conditions in every direction, including the milk supply and the care of streets, alleys, and docks. In spite of the inactivity of other departments, everything possible under the law has been done to put this city in proper condition and many important changes have been brought about. The local inspection is frequent and regular, and is conducted by inspectors under the control of the health commissioner and chief of police covering the general meat supply and the stock yards, packing houses and meat markets. The government inspection of meat appears to be confined to the condition of cattle "on the hoof," that is in the stock yards, and to the "killing rooms," comprising, of course, the condition of shipment, whereas the local inspection comprises a searching examination of unsanitary conditions of every description. The inspectors are appointed by the Health Department from an eligible list provided by the "Civil Service Commission," and are under the direction of Dr. Bading. They investigate all complaints and thoroughly examine the conditions of slaughter houses, meat markets, stock yards, bakeries and milk depots. Daily reports are made to the commissioner and necessary orders are issued and transmitted to the owners, and in due time, further inspections are made to see if the orders and suggestions of the Health Department have been carried out. The condemned meats are saturated with kerosene and destroyed or consigned to the rendering plants. The skins are turned over to the owners.

The Health Department will soon introduce an ordinance compelling all butchers, meat dealers, bakers and other dealers in food stuffs to take out licenses, in order to make more complete official control. An examination of the correspondence between the Health Department and various packing houses, together with the detailed reports of inspectors, discloses an interesting degree of detailed examination, and it is gratifying to be able to say that the packing house of the Layton Company was found to be a conspicuous model. Only one Milwaukee packing house was found to be wholly bad in its appliances and general condition. The rest were in the main not seriously faulty, and their proprietors were prompt in making the changes required by the Health Department.

WASHINGTON, D. C.

By MURRAY GALT MOTTER, Chief Inspector and Deputy Health Officer,
District of Columbia.

Probably 75 or 85 per cent. of the meat supply comes from the west,—chiefly, Chicago. It is shipped to Washington in cold storage cars, and is subject to inspection in local storage places after removal. All this meat bears the stamp of the Federal Government. Most of the local slaughtering is done at the Benning abattoir, the condition of which is good. There is one small slaughter house where the slaughtering is irregular and not very extensive. There are a few others where sheep and calves are killed. There are two

abattoirs in Virginia in the immediate vicinity of the District, one at Jackson City and the other at Rosslyn; the work at these abattoirs is not under inspection, being entirely outside the jurisdiction of the local health department. At the instance of the Health Officer, the Commissioners of the District have brought this matter to the attention of the Department of Agriculture, in order to have inspectors stationed at these Virginia establishments, but under date of August 24, 1904, the Acting Secretary of Agriculture stated that, "while the law authorizes the Department to establish inspection at slaughter houses doing interstate or foreign business, as a matter of fact, Congress has never appropriated sufficient funds for applying the inspection to all such places. There are now pending before the Department numerous applications for inspection, which cannot be granted because the appropriation for the current year will not permit the extension of the service, and I regret to say that under these circumstances the Department is unable to establish inspection at the places mentioned." In the annual reports of the Health Officer, attention has been called to this defect, and the recommendation has been made that all meat and meat products sold in the District should bear the seal of Federal or local inspection as a guarantee of their freedom from disease.

In the past year there have been killed, under the observation of the District inspectors, 13,254 cattle, 54,033 hogs, 24,975 sheep, and 40,935 calves. Of these, there were condemned $25\frac{1}{4}$ cattle, 108 hogs, and 36 sheep; a total of 97,199 inspected, and $169\frac{1}{4}$ condemned, not including small viscera, etc.

The local laws are contained in an ordinance to prevent the sale of unwholesome food in the cities of Washington and Georgetown, as amended by Commissioners' orders of January 2, 1902, April 21, 1903, and April 27, 1906. Also, the Act of Congress approved February 17, 1898, relating to the adulteration of foods and drugs in the District of Columbia. Briefly, the ordinance prohibits the sale of impure, diseased, decayed, or unwholesome provisions; provides that no person shall convey into the District of Columbia and offer for sale in any part of said District, any animal or part of animal that may be sickly, diseased or unwholesome, or which may have died from disease or accident; that no person shall slaughter any cattle for the purpose of food, within the District of Columbia, when such cattle are in a feverish or diseased condition. There are further provisions with regard to the exposure of food for sale, and the general cleanliness of places in which food products are kept, or stored. While the Act of Congress provides "That an article shall be deemed to be adulterated within the meaning of this act: (b) In the case of food . . . if it consists wholly or in part of a deceased, (Sic!) decomposed, putrid, or rotten animal or vegetable substance, whether manufactured or not." There is no authority by which the inspector may kill, or order killed, a diseased animal; but the same may be branded. In the inspection of meats offered for sale, it has been the practice of the Department to slash the meat, in order to prevent the making of the ordinary cuts, and in other cases to pour coal oil over it, in order that it may not again be used.

For general inspection, three of the veterinarians connected with the inspection of dairy farms and dairy products are detailed to inspect the slaughter houses two days in the week, each. There are in addition, three food inspec-

tors, whose duty is to inspect the markets, stores and restaurants. These inspectors are appointed by the Commissioners of the District of Columbia on the recommendation of the Health Officer. With regard to the inspection of meats, the Federal rules are observed, and the larger cold storage plants in which meat is stored, being near the principal market of the city, are regularly inspected.

At the abattoir, the meat which is condemned is tanked for fertilizing purposes, under the personal supervision of the inspector on duty. There is no compensation to the owner for products condemned.

PROVIDENCE, R. I.

BY FRANK E. LAKEY, Providence, R. I.

The chief source of the meat supply of Providence is Chicago, only a few shipments being received from Indianapolis and Cincinnati. The local supply is furnished by one small slaughter house. The condition of this house is fair. The western meat comes dressed in refrigerator cars. No live meat is received from the west by rail. The average is forty cars of beef (25 to 40 animals) and four of mutton weekly.

If a person sells diseased or unwholesome provisions, whether meat or drink, without making the same known to the buyer, the penalty is imprisonment for not more than six months or of a fine of not more than \$200. If a calf less than four weeks old be killed for sale the fine may not exceed \$200.

A State law passed April 20, 1906, prohibits the importation or exportation, or possession with intent to sell, within the State of any slaughtered animal, or any meat or fish of any kind, whether manufactured or not, that is tainted or diseased, or any unwholesome animal substance unfit for food.

A state inspector general is appointed, but the office has been a farce for years. The only inspection is by the city inspector of beef and pork. The ordinances of the City of Providence provide that the City Council at the annual election of officers shall appoint one inspector of beef and pork, who must give a bond for \$1,000. His duties require him to visit "from time to time and at frequent intervals all places within the city limits where fruit, vegetables, meat, fish, or other provisions, liable to become diseased or unwholesome, shall be exposed for sale." If in his opinion necessary, he may seize and destroy or dispose of, otherwise than as food, any poor article. One hour after seizure he is to treat such provision with kerosene oil or other substance to make it unfit for food. A record of each seizure is kept and a report made to the chief of police. The inspector is to act on notice from the State Board of Health, the Superintendent of Health, the City Physician, Mayor or City Council. In general he is under the direction of the City Superintendent of Health. His salary is paid by the city.

Whatever inspection of shipments is made, is by the local inspector. Some of the meat from western cities is received without the tag of the government inspector. The inspector visits stores, store houses, cold storage plants, etc., at irregular intervals and hours. All suspicious food is examined and, if condemned, is removed at once. Packages are opened if necessary. Refrigerators and cellars are entered. The work of the present local inspector is thorough, persistent and beneficial. Ready support is given by all the better class of dealers. The chief trouble is with the non-English speaking dealers.

The thoroughness of the inspection of the markets of the City of Providence is shown in the number of the visits of the inspector and the quantity of provisions condemned. In 1904 the number of calls was 2,930 and in 1905, 2,750. In 1904 meat and fish were condemned to the amount of over 16,000 pounds. In 1905 the amount condemned was less by one-half—due to co-operation of the dealers, cooler summer and more persistent inspection.

The destination of condemned meats and animals is the several rendering plants. These plants turn out fertilizers, fats and bones. During 1905 the State Board of Health killed 728 animals, including 668 cows. The number killed is between two and three percent of the total in the state. When animals are killed by the State Board, a sliding scale of compensation is used in paying the owner.